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PUTREFACTION OF ANIMAL SUBSTANCES.

[Read by Dr. HOLLINGSWORTH before the College of Physicians of Philadelphia, June 7th, 1854.]

IN the February number of Liebig's *Annalen*, there is an interesting article, by MM. Schröder and Von Dusch, upon filtration of the air in connection with fermentation and putrefaction. Aware, from Schwann's experiments, that putrefaction does not occur in a freshly-boiled infusion of flesh, when the air which has access to it is previously exposed to a red heat, they were led to the supposition that, if the cryptogamic and infusorial germs—considered by Schwann to be the cause of fermentation and putrefaction—were mechanically excluded from entering into the infusion, decomposition would not ensue. To test this, two flasks, containing fresh-boiled meat and its decoction, were placed alongside of each other. One of these had a long tube entering it, which, during the ebullition, was packed with raw cotton, previously heated in a water-bath. Another tube, in the same flask, was connected with a gasometer, filled with water, in such a way that, as the water escaped by drops from the discharge-cock of the gasometer, air must pass through the cotton and infusion to re-place it. By this means, there was a continuous current of air upon and through the infusion. The other flask was left open. In the second week it was found that the broth in this latter flask had become exceedingly offensive. The other was opened on the twenty-fourth day, and found entirely unchanged, presenting, when heated, the characteristic smell of fresh broth. Similar results were obtained by experiments upon freshly-boiled malt-wort—it remaining unchanged for weeks, when the air which had access to it was previously filtered through cotton.

As I was much interested in these experiments, I thought I would try them myself, and taking the two glass globes, which I here present, I partially filled them, twenty-four days ago, with a strong decoction of meat. Then, while the decoction was boiling in this flask, I filled its neck, which is about three quarters of an inch in diameter and one inch long, with raw cotton, loosely packed. The other globe, containing the remainder of the decoction, was left open. The room in which they were both left was a garret—its temperature about 80°. On examination, eight days afterwards, the decoction in the open vessel emitted an intolerably putrid odor, much more offensive than it will be found

to be at present. The broth in the other vessel, which I open now, is, I find, perfectly sweet and fresh.

The true theory of fermentation and putrefaction can only be deduced from a careful examination of the phenomena connected therewith. There is no real dividing line between the two processes. The term fermentation is generally applied to those changes in which the action is most rapid, when the products of decomposition still retain a high rank as organic combinations, and in which one or more of the products are of greater or less practical value to man. Putrefaction, on the other hand, may be defined as a slower decomposition, in which the elements resolve themselves into simpler combinations, some of which emit a highly disagreeable odor, and which serve no useful purpose to man, excepting as manures, where the *elements*, not the *compounds*, are found useful. We will, therefore, treat of the two actions as one and the same, under the term fermentation.

The following are the now received theories of this process :—

1. That the decomposition is produced by a ferment, that exerts a catalytic action upon the molecules of the substance in contact with it. This, which is Berzelius's view, merely gives a name to the action, but does not explain it.

2. That the ferment, by the action of the oxygen of the atmosphere, suffers a diminution of the attractive power that holds its molecules together, which results in the formation of new compounds, and that, when this action has once commenced, it continues (even by exclusion of further access of air). A mechanical motion is thus communicated to the fermentative substance in contact with it, producing a change in its atomic structure, and forming new compounds—the products of fermentation. This is Liebig's theory. It utterly fails, however, to account for the general, if not universal presence of animalcules and plants; for the effects of heated air on fermentation; for the effects of filtration; and for many other facts.

3. That fermentation is induced by the presence of germs of microscopical animalcules and plants, which require, as essential to their growth and development, the presence of moisture, warmth, and generally speaking, air. The absence of any one of these, checks the growth of the germs, and, consequently, stops the fermentation. Many poisons, both mineral and vegetable, destroy these germs, with the like results. Schwann is the author of this latter theory. If we adopt his views, we can understand why decomposition does not take place in a fresh decoction of meat under certain circumstances. The germs existing in the meat or water are destroyed by the ebullition. Other germs are mechanically excluded by the plug of cotton; and, though moisture, heat and air are all present, the germ—the *primum mobile*—not being there, no chemical change ensues.

It should be remembered that the chemical affinities by which organic substances are held together, are very slight, and easily disturbed. They offer, in fact, but little resistance to the action of disturbing agents. Let the germs of cryptogamia and infusoria, which are always present in the atmosphere, be once deposited, and they soon grow, taking to

themselves, by endosmose, from the soil in which they are present, sufficient material for their sustenance and development. In this way, molecular attraction, in a *non-living* organic substance, soon becomes affected, and thereby resolves the substance into new and simple compounds.

The cryptogamic origin of zymotic diseases derives, we think, some support from the above views of the cause of decomposition. It is a general belief that animal and vegetable matters, in the stage of decomposition, cause various epidemic and miasmatic diseases. It is also well known that the direct introduction of putrid, decomposing, and other deleterious organic substances into the system, produces affections very similar in their nature to those caused by animal and vegetable exhalations. All these zymotic affections, though widely differing from each other in their symptoms and duration, are characterized by more or less prostration of the vital powers from the very commencement, and by a changed and deteriorated condition of the blood. Is it very improbable, then, to presume that the presence and development of microscopic germs produce the same, or somewhat similar phenomena—viz., decomposition, change, and deterioration of blood and other fluids in the living body—just as we have seen them do in dead organic matter?

It is a singular circumstance, that certain infusoria and cryptogamia are peculiar to, and are only seen to develop themselves in certain substances—resembling, in this, the floræ and faunæ of the earth, which have each their respective habitats. Yeast has its *toruli cervisii*; flesh, in a state of decomposition, its *fibræ lineola* and *monas termo*; diabetic or grape-sugar urine, its sugar fungus, &c. It is possible that each of the zymotic affections has its own peculiar fungus, the growth and spread of which is proportional to the extent and prevalence of the disease. Or we may imagine that all these affections are due, not to the peculiar or specific action of one species, but that the disease is the combined product of any one or all of them, and of atmospheric and other general influences acting upon the human system.—*Transactions of the College of Physicians of Philadelphia.*

ON THE REMEDIAL AND ANÆSTHETIC USES OF INTENSE COLD

BY JAMES ARNOTT, M.D., LONDON.

ALTHOUGH the subjects of the remedial efficacy of congelation and local anæsthesia from cold have been for some years before the public, they are as yet but little understood and appreciated. This has resulted, partly from their having been imperfectly explained, in consequence of the publications respecting them being severally incomplete, and partly from the strength of the prejudice against extreme cold. Dr. Rowley, who, in his attack on cowpox, declared that the accounts which he had heard of the terrible effects of communicating the "cruel and beastly" disease were enough to "freeze the soul," was probably not more horror-stricken than some have been by the proposal to freeze the body;

and the introducer of vaccination was hardly more abused than the proposer of congelation has been. It is in the hope that this prejudice may be thereby abated, and the subject rendered better understood, that the following brief statement is published. Even in France, where both the remedial and anæsthetic uses of intense cold have been turned to account for some time by M. Velpeau and other leading practitioners, there is still much doubt about the best mode of applying the agent. In a paper in the *Bulletin de Therapeutique*, of the 15th ult., M. Richet, Surgeon of the Hospital Saint-Antoine in Paris, reports thirteen operations in which local anæsthesia had been produced by the very imperfect means of the quick evaporation of ether.

As no remedy has been longer in use, and few are more valued than the local application of moderate degrees of cold, or a temperature ranging from that of dissolving ice to about 70° of Fahrenheit, it may at first appear singular, that a greater or more powerful remedial effect should not have been sought by increasing the dose of the agent, or employing a lower temperature, in the same manner as we have sought and found much greater remedial benefit in many cases by using mercury, antimony, quinine, and other drugs, in larger doses than had been customary. The reason is that medical men were under a most erroneous impression respecting the effects of very low temperatures on the body. Because a temperature of zero stops the circulation, and because the vitality of a part has been lost by its *long-continued* congelation, whether caused by exposure to severe cold in winter, or by the incautious use of ice in hernia and other diseases, it was hastily and erroneously inferred that there was danger of loss of vitality from *short-continued* congelation. The mistake would not be greater to infer from the fact, because a long-continued stoppage of the circulation through a limb from an improper application of a bandage has occasioned gangrene, that it would be dangerous to use the tourniquet in operations.

The correction of this error will be deemed of no little importance when it is considered that in short-continued congelation, judiciously applied, we have an unfailing means of immediately arresting inflammation wherever it can be reached by the remedy; of not only giving speedy relief from pain in many diseases, but in consequence of the organic changes produced by it, of obviating the return of pain; and in malignant disease, of producing an amount of benefit much exceeding that yet accomplished by other means. Although much inferior in importance to these results, it is yet another great benefit conferred by intense cold, that the pain which would be otherwise caused by the greater number of surgical operations can be prevented by it with perfect safety; and not only can pain be prevented, but the inflammation proceeding from the surgeon's knife, that so often proves fatal, may also be obviated by the same means, and with almost equal certainty. It will be proper to consider the remedial and anæsthetic effects of intense cold separately; but before doing so, it is necessary to mention how this degree of cold is produced and applied, as well as to attempt an explanation of its mode of operation.

That degree of cold may be called intense which immediately be-

numbs the part to which it is applied, speedily stops the circulation through it, and congeals the adipose matter. I have usually produced these effects by placing what are termed frigorific mixtures either immediately in contact with the skin or mucous membrane, by means of a net of thin gauze containing them, or by allowing them to act through thin bladders, or metallic vessels of appropriate form; but there are various other ways of effecting the same object, some of which are preferable for certain purposes. Substances passing rapidly from the solid to the fluid, or from the fluid to the aeriform state, strongly abstract caloric from other bodies in contact with them; and substances, either solid, fluid or aeriform, already sufficiently cooled by artificial means, may be placed in contact with the part: the first, as solid metallic balls of appropriate shape; the latter two, when forming strong currents. When cold is produced by the common frigorific mixture of ice and salt, and applied by means of a gauze bag or net, the following is a convenient mode of proceeding:—If the congelation is not to be extensive or long-continued, a piece of ice of the size of a large orange will be sufficient. This is well pounded in a coarse cloth or bag, and the powder being placed upon a large sheet of paper, is thoroughly mixed, by means of a paper-folder, with about half its weight of common salt. The mixture is then put into a net of about four inches diameter, and as soon as it begins to dissolve, it is ready to be applied. The net is not kept motionless on the part, but is frequently raised in order that fresh particles of the mixture may be brought in contact with the skin; and the water that escapes from it may be absorbed by a sponge, or allowed to fall into a basin placed underneath. If the surface to be acted upon is of small extent, a very thin and large copper spoon containing the mixture, or a solid brass ball of about a pound weight, which has been immersed in ice and salt, will often answer, and be a neater mode than the net.

The moment a gauze net, or a thin metallic vessel containing ice and salt, is applied to the skin, it is benumbed. There is hardly a sensation of cold produced, and no tingling or smarting. If the contact of the frigorific be continued a few seconds longer, the surface becomes suddenly white, in consequence, doubtless, of the arrest of the circulation; and this change of color is attended with a slight smarting like that produced by mustard. There is now complete anæsthesia, which, if the frigorific were removed, would remain complete for several minutes. But if the frigorific be allowed to act, another change is produced—the adipose matter under the skin is congealed, and the part becomes hard as well as white. The depth to which the benumbing influence of cold will extend depends upon a variety of circumstances, as the degree of cold, the duration of the application, the vascularity of the part, whether pressure is used or the circulation is suspended, &c. &c. After the usual application of cold for anæsthesia, the circulation soon returns to the part, and the skin assumes a red color which lasts for several hours. If the congelation has been considerable, there is now some smarting felt, unless the natural heat be more gradually restored by pouring cold water on the part, or by placing on it a little pounded ice, or a bladder contain-

ing iced water. If the application has not exceeded the first stages, there is no smarting, and no necessity, therefore, for such precautions.

The redness produced does not, as might at first sight be supposed, indicate an inflammatory condition, but the very reverse. The tonicity of the small arteries appears to be lessened or suspended for a time, and instead of being inflamed, the part is rendered unsusceptible of inflammation. Parts cut after congelation heal by adhesion or the first intention more quickly than they otherwise would; and, as has already been said, we possess in this expedient a certain and prompt remedy for every inflammation accessible to its complete influence.

I. Remedial Uses of Intense Cold.—The remedial qualities of intense cold may be described as antiphlogistic, anodyne or sedative, and specific; and it is useful in the diseases for which other remedies possessing these qualities have been employed, viz., in inflammatory, painful or irritative, and malignant diseases. The circumstance which limits its application in these, is the impossibility of extending its influence beyond a certain extent or depth, although it is certain, from its effects in deep-seated disease, that this influence, whether it be direct or sympathetic, is more extensive than would at first be supposed. It may be laid down as a rule, that in every case in which the local application of moderate degrees of cold has been found of service, the use of well-regulated congelation would prove much more useful; and in those diseases of similar character, in which moderate cold has not been employed from the idea that their seat was beyond its reach, congelation might be tried with reasonable hope of success. Intense cold has this immense advantage over other powerful remedies of the same class, that it may be used with impunity—if it does no good it will do no harm. Who will venture to affirm this of bleeding, mercury, antimony, opium, chloroform, arsenic? Neither in my own practice, nor (so far as I can learn) in the practice of others, has there been any untoward result from the use of congelation. Its action being confined to the diseased part, and not uselessly expended on the rest of the system, affords the explanation. Other topical remedies have much the same character for safety, but what other expedient of this class has a tenth part of the power of intense cold?

Instead of enumerating the diseases in which this agent has been employed according to the above classification, I shall mention, first, those in which it has been more or less successful; and, second, those in which it might, reasoning from analogy, be tried with hope of advantage. In administering intense cold as a remedy, the common or a more powerful frigorific has been generally applied directly to the part, or with the intervention only of the thin gauze containing it; and the duration of the congelation has been from one to ten minutes.

In the spring of the year 1849, I requested the house-surgeon of the Brighton dispensary to apprise me of every case of acute lumbago that came under his notice, and in all of these, amounting to nine, I employed congelation with perfect and permanent success. The net containing the ice and salt was passed to and fro for five minutes, over a surface of about eight by four inches, the skin being blanched during

the whole of this period. In only two or three cases was it necessary to apply the remedy twice. Several of the patients rose immediately afterwards from their beds to which they had long been confined. In most cases of chronic rheumatism, the remedy has been equally successful; and this, on account of the frequency of the disease, is one of its most valuable applications. Sciatica has generally yielded to it, but by no means so easily. In acute rheumatism, the local inflammation of the joints is, by this means, invariably and completely relieved, and that portion of the accompanying fever thence arising, is consequently removed. The disease, thus treated, will run a painless course of about a week's duration. In no case, of about a dozen in which congelation was almost exclusively employed, was there extension of inflammation to the heart; and I am persuaded that the best plan of preventing this, is to subdue the inflammation of the joints from which it generally originates. I did not use the remedy in cases where the heart was already affected, though I have since learned that congelation is employed in the hospital at Vienna (where it was introduced some years ago by Dr. Waters of Chester), as an application to the chest in rheumatic carditis. That this affection of the heart would occasionally occur during the treatment of acute rheumatism by congelation is very probable, because it often arises, as the same affection of the joint does, from a morbid condition of the blood over which the remedy can have no control; and that such an occurrence, in the present feeling on the subject, would be called metastasis from cold, is very certain; but I am convinced that it will yet be acknowledged, though probably after many years, that this affection would be much decreased in frequency by the adoption of any means capable of quickly subduing the accompanying arthritis. When it is considered what an immense amount of eventual mischief arises from the organic disease of the heart that occurs under the common modes of treating rheumatic fever, to say nothing of the patient's present sufferings and tedious confinement, it is to be lamented that prejudice should oppose any measure of greater promise. In rheumatic gout, the relief has been as marked from congelation as in lumbago. In ordinary inflammation of the joints it has also been exceedingly useful. Ophthalmia has been immediately cured by keeping the frigorific in contact with the gently-closed eyelid for three or four minutes. Glandular inflammation in the neck and groin, yield to a high degree of cold with equal facility. I have been told that in orchitis, its beneficial operation is immediate; and I have little doubt that, from its closeness to the surface, the urethral inflammation causing orchitis, would be quickly suppressed. Congelation has often at once converted an irritable into a healing ulcer, though sometimes the patient has complained of the pain of the operation; it is probable that had the salt in the mixture been prevented coming in contact with the irritable surface, this would have been in a great degree prevented. Certain acute inflammatory affections of the skin are equally under its influence, as erysipelas, eczema, impetigo. It has not often failed in prurigo, but in only one case of psoriasis has it appeared to be of service. Painful nodes are at once relieved by this means, and the inflammation subdued. I have only used conge-

tion in carbuncle as an anæsthetic previously to cutting it, but it is probable (judging from its effect in severe boils) that the incision might have been dispensed with. It has been mentioned to me that severe cold has been employed with the same view in whitlow, of which it is certainly a sufficient cure. The inflammation following sprains, contusions and other similar injuries, is perfectly under its influence; and the same may be said of burns. In one of my publications on the subject, I have related the excellent and speedy effect of congelation in a case of meningitis, and also in a case of peritonitis; I have not had the opportunity of trying it in other affections of this description. Headache of various kinds has at once yielded to the application, for a minute, of a frigorific over the painful part; and in neuralgia affecting the side, it has generally proved efficacious. In neuralgia attacking the face and other parts, it has often succeeded and often failed. If the seat of the disease be deep in the brain, little can be hoped from this remedy, although there are few obstinate cases of neuralgia in which it does not deserve a trial. Toothache is generally at once relieved by it if properly applied; and there is no remedy for the painful affection of the mouth caused by mercury comparable to congelation. A spoonful of dissolving ice and salt is repeatedly put into the mouth, until it becomes benumbed. In one case of severe scurvy of the gums, where I feared a loss of the teeth, extensive congelation of the gums immediately arrested the disease.

In many of the diseases just enumerated, the promptness of the cure is as remarkable as its certainty. In military and hospital practice this advantage is very prominent.

In cancer the effects of congelation have been various. From my own experience, and that of others, I think that in its early stages, and when from its size the tumor can be thoroughly brought under the influence of the remedy, it will be cured by it. In all stages the progress of cancer will be arrested or retarded, and the pain accompanying it assuaged. The difficulty in advanced cases is to cause a sufficient degree of cold to pervade the tumor. The French translator of a recent paper of mine on the subject (*L'Union Medicale* for May), thinks that the frequent occurrence of cysts in cancerous tumors may facilitate this. But if layer after layer is acted upon, it may be enough. In cancer of the womb the frigorific is applied by means of a speculum, and one stronger than ice and common salt will generally be required. The opinions of Dr. Hughes Bennett respecting the nature of cancer have much influenced the mode in which I have used congelation in its treatment. M. Velpeau states in his recent elaborate work on diseases of the breast, that he has employed *long-continued* congelation as a substitute for caustic in cancer; but of this effect of the agent I have no knowledge.

There are other diseases in the treatment of which severe cold would probably be very useful. It might be applied with such a hope to the spine in tetanus, or to the scalp in certain varieties of mania. After gunshot and other severe wounds, it would prove a powerful preventive and cure of inflammation. Even in pleuritis and other deep-seated inflammation of the chest, as well as in various uterine affections, benefit might rationally be expected from it. In two cases of epidemic cholera,

I administered a succession of draughts of a temperature of about 25° Fahrenheit, with apparently excellent effect; and I cannot doubt that the application of cold to the interior of the stomach, which, as appears by the recently-published report of the College of Physicians, is the only treatment of cholera which has been unanimously approved of, has not been carried far enough. If the irritation of the mucous membrane be considerable (as it must be, to account for the exhausting and fatal discharges), the temperature of ice merely is not sufficient to subdue it.

II. *Anæsthetic Uses of Severe Cold.*—As patients now expect to have every operation performed without pain, both they and their surgeons will be glad to have an easy and agreeable means of accomplishing this, in all the common operations, unaccompanied with the dangers of chloroform. What can be less troublesome in opening an abscess, for instance, or making a cutaneous incision, than touching the skin for a moment with a small brass ball that has been immersed for a few minutes in ice and salt, or a thin spoon filled with such a mixture? It is true, that in deep-seated operations such a means can only suspend the sensibility of the skin; but it is the incision of the skin which constitutes the most painful part of every operation, and if this be benumbed, a smaller, and consequently less hazardous dose of ether or chloroform than has usually been administered, would be enough to remove the sensibility of the other tissues. These deep-seated operations, however, constitute a small minority, and if the list of recorded deaths from etherization be referred to (now amounting to more than fifty) it will be found that in three fourths of the number, complete anæsthesia might have been produced with perfect safety by cold.

M. Velpeau, who introduced anæsthesia from cold into France, has, in a lecture on the subject recently reported in the *Gazette des Hôpitaux*, expressed the doubt, whether in some operations, the hardening of the tissues by this means might not prevent their being cut with ease. I have not found this to be the case, nor does he himself allude to this supposed disadvantage, when, in his work on diseases of the breast, he mentions that he has excised tumors after anæsthesia from cold.

The fear of re-action I have already adverted to in the prefatory observations. Instead of re-action being produced, the anæsthetic is a preventive of inflammation from the wound; and were it used for this purpose alone, it would be invaluable.

Local anæsthesia from cold may, as has already been observed, be produced in a great variety of ways. Some of these may be applied so as to cause immediate congelation, but it is questionable whether the anæsthesia is not more extensive and lasting when more slowly caused. Such details, however, are unsuited to the general view of the subject intended by the present communication, which, I fear, has already exceeded its proper bounds.—*Edinburgh Monthly Jour. of Med. Science.*

PUERPERAL CONVULSIONS.

[Concluded from page 54.]

ONE cause of spasm is avoided by giving ether, where the patient labors hard, and there are no other symptoms pointing to this end. From physiology we learn that respiration is closely connected with the medulla oblongata; that mechanical injuries of it cause sensible modifications of this function. It is, therefore, of importance to parry everything that conspires to the smallest morbid influence upon the organ. Whether in case of convulsion with insensibility the impressions are primary at the medulla oblongata, or the two more sentient divisions of the brain, is a matter of small consideration so long as we do not often find an instance in which there is not sympathy synchronous with morbid change in either, which fact we know from the immediate interruption of functions belonging to both. We can suppose the amount of functional derangement that would result from reducing the respirations from 18 perhaps to three or four in a minute, where violent action of the expulsive system coincided with this means of imperfect aeration and congestion. The influence of *impure* blood upon the brain is seen in the immediate action of substances taken into the circulation from remote organs, and in a condition less favorable for ready assimilation. But the inspiration and retention of a substance adopted without any digestive analysis for nervous aliment, and acting with a kind of electrical pervasion and rapidity upon the sentient centres, must be readily conceived to produce much injury without a decisive mode of operating. Such is the effect of carbonic acid, forced into the circulation by singultus and long expulsive inhalations of some patients in labor. The agency of this substance in the air-cells to change the regularity of respiration by impressions made upon the peripheral extremities of the vagi and pneumogastric nerves, is well known. If, therefore, anæsthesia will regulate the respiration, it is adducing something to its utility in warding off congestive convulsion.

Similar measures should be adopted in keeping off puerperal epilepsy, as those in use for the usual form from other causes, where the patient has warning of the attack. The convulsions succeeding confinement usually present the same characteristics with cases which are hereditary and disconnected with labor or gestation. There is usually the same heraldry or suddenness, attended with distortions, stertorous breathing, &c. It is necessary, therefore, in protracted labors in which the patient experiences acute pain, with the os uteri unyielding, to notice particularly for premonitions of this disease, and if observing, together with the convulsive diathesis, anything holding a near relation to spasm, it will be conservative to anticipate an attack by some impression upon the nervous system both by manner and medicine.

"Sunt verba et voces, quibus lenire dolorem,
Passis et magnam morbi deponere partem."

I have been told within a few days, by an habitual epileptic formerly, that she generally had warning of attacks, and often prevented them by resorting to placebos, which seemed as essential as any decidedly medicinal

effect of the remedy. It is proper to state that in this case there is no approach to hysteria in the confirmation, no periodicity in the attacks, nor in those of the patient's daughter, who inherits the disease. The mother does not remember having fits common to children from teething, cold and indigestion. Her daughter, on the contrary, had a fit when about 18 months of age, another at about 9 years, and along at irregular intervals to her present age, 19 years.

An eccentric attack of epilepsy, connected or not with labor, could be experienced in a temperament very little sympathetic, without much detriment to the brain. In such persons the form of the disease is more apt to be centric than sympathetic, or resulting from causes more remote from the brain and spinal axis. Such will not be liable to convulsions resulting from local irritation communicated by afferent nerves; consequently in attending this class in labor, the only fear of the disease is during and after confinement, and the principal cause is probably venous congestion augmented by the narcotic effects of carbonic acid retained by holding in the breath. By learning if the patient has been subject to spasms of childhood, and noticing the condition of the head and circulation generally, it will be easy to decide upon the necessity of anæsthesia.

I have never seen any of the sluggish, non-communicative nerve who had warning of the attack, or even experienced the epileptic *aura*. The young lady whom I have mentioned is one of the phlegmatic habits, in whom, probably, the cause is located near or within the cranium, and who, doubtless, owing to the difficulty of transmission even to the cerebrum, will undergo many ulterior fits before much mental deterioration is perceptible. In these habits epilepsy produces little disturbance in remote parts of the body, or even distortions of the adjacent muscles, because the morbid influence is not radiated readily in any direction. In these cases chloroform would effect a more involuntary delivery by throwing the expulsion more exclusively upon the uterus. It might slightly protract the labor, but not much beyond the time that would be required by substituting the compress used by some over the abdomen, and it would materially diminish the liability to convulsion.

When the pains have become established and recur at short intervals, ether does not abridge the energy of the uterus. It prevents the synergistic action of the diaphragm and expiratory muscles, consequent upon which is uniformity of respiration, which equalizes the motion of the blood and renders convulsion, of which any engorgement of vessels within the head is a causative item, much less liable to supervene.

The following came under my notice in 1850, in the State of Ohio.

CASE.—Mrs. W. I. M., age 22, nervous sanguineous temperament, symmetrical proportions, moderately full habit, was confined 13th of April with the first child, a girl. Nothing preternatural in the labor, which proceeded well until the detachment of the placenta, upon which she remarked that it gave her pain, and immediately went into the most frightful convulsions. Previous to confinement, patient complained of pain for a few months along the spine, showing that gestation alone had produced much nervous irritation. She was not of an excitable nature,

and had not magnified her coming distresses. After delivery there were the symptoms of nervous exhaustion. The bowels did not move, the urine was retained, the lochia were scanty, the pulse weak, and the abdomen tumefied. The case was attended with horrid distortion of the face, stertorous breathing, opisthotonos, blindness and paralysis of the tongue.

Treatment.—The patient was bled sparingly, the bowels stimulated to motion, together with topical remedies to the head, spine and abdomen.

Remarks.—The pain in the back seemed to proceed up the spine, was evidently radiated from peripheral extremities of nerves to and along the spinal medulla, and was the symptom to have been taken as the true *aura epileptica*—positive premonition proportionate to its emphatic sensation beyond the scarcely-perceptible radiating influence, the usual accompaniment. A dull pain in the back attends, perhaps, upon a majority of cases, but is quite distinct from that which is sometimes transmitted along the course of nerves like electric fluid. Toothache is sometimes a harbinger of convulsion, but it is easy to distinguish the neuralgia proceeding from cold, exposure of a nerve, &c., from that connected with the gravid uterus. The disease commenced by a turning of the neck to one side, a peculiarity noticed by Mr. Watson in most cases of uncomplicated epilepsy—the *muscularum convulsio cum sopore* of Cullen. There was protracted succession of spasm at intervals of from ten to thirty minutes, and continuing for six hours, besides the termination of convulsions long before the return of consciousness.

Respecting anæsthesia in primiparous women, with a dryness of the parts and rigidity or continuous tonic spasm of the perineum, it is often of great benefit, though no farther indications point to spasm. The utility is more apparent in these cases in safely terminating the labor if the os is somewhat dilated before the administration, when the rigid parts will generally yield readily. There is so much fear with these patients, that if the sentient nerves are allowed to act, they actually retard the labor by a kind of general muscular tonic, over which pain causes the will to exert an inordinate influence, which even extends to the uterus, as would appear by its dilating more rapidly at the inception of unconsciousness.

CHARLES BELL, M.D.

Nantucket, August, 1854.

CASE OF TAPE-WORM.

[Communicated for the Boston Medical and Surgical Journal.]

THE following case of tape-worm, which came under my observation, may be worth recording.

N. S. Chapin, of Columbus, Ohio, 37 years of age, large, muscular, and of sanguine temperament, presenting symptoms of tænia, was treated accordingly.

On the evening of July 20th, 1853, at 20 minutes past 4 o'clock, P.M., administered $\frac{f}{3}$ ijs. ol. terebinth., followed in twenty minutes by $\frac{f}{3}$ ijs. ol. ricini in Port wine. At this time the patient felt dizzy, feeble and tremulous, with indistinct and confused vision. The bowels were

moved in an hour and a half after taking the castor oil. Oil of turpentine was manifest in the discharges, which were fluid-like and caused smarting of the anus. Within ten hours after this time, the bowels operated fifteen times, and the discharges were all watery. At the eleventh operation a piece of worm came away, about two feet in length. The twelfth discharge, as represented by the patient, brought away a mass of worm about half the size of the fist; this, I regret, I did not see. A whole and perfect worm, showing slight symptoms of life, came away at the next discharge, which upon mensuration, I found to exceed twenty-five feet in length. The specimen is a fine one. The cephalic and caudal extremities are perfect. I have it preserved in alcohol.

For the last fifteen years the patient has experienced many singular symptoms and inexplicable derangements, inducing him to consult a great number of physicians; but from their prescriptions he had derived no benefit, the old symptoms continuing to harass him as ever. The true nature of the difficulty was never suggested.

Among the symptoms experienced by him during the time mentioned, may be enumerated—continual irritation of the nose, causing him to pick it much with the fingers; indigestion; flatulence; itching of the anus; irregularity of the appetite, alternating with anorexia and voracity; sour stomach; debility; depression of the spirits; night-mare, with continual restlessness night and day. The nervous derangements were predominant, and at no time was there any diarrhoea.

Since the medication with turpentine and the discharge of the tænia above referred to, the patient has experienced entire freedom from all the distressing symptoms that for so long a time compromised his happiness. He follows the laborious occupation of a miner, and is now ruddy, robust, and in the enjoyment of the highest state of health and vigor. The sudden and thorough change in the health of this individual for the better, places tænia as the cause of his derangements beyond all doubt. Had the same remedies been employed at first that in the end proved successful, I have no doubt that my patient would have experienced the same relief ten years since, that it was his fortune to receive about one year ago.

This case, to my mind, illustrates, in a forcible manner, the necessity of a careful and scrutinizing analysis of such cases as present themselves with a train of obscure symptoms, which have lingered for a long period of time, with a view to *hypothesize*, if not ascertain the prime origin of the difficulty, and thus prompt to a fit and successful course of treatment.

From much experience in the treatment of entozoa, I am satisfied that if not a specific, turpentine is preëminent in the materia medica for its power in expelling them from the human body. In fact, the operation of the remedy is so successful and perfect, that we feel little inclined to seek for any other. Yet, its use, to answer expectation, demands attention and skill. Turpentine most thoroughly shortens the existence of these repulsive tenants of the intestines. They give way before its sickening and destructive properties; the laws by which they live, thrive, luxuriate, revel and retain their position, are suspended; they become

an easy prey to the vital forces, and by the aid of castor oil, are soon, with other matters, discharged from the bowels.

In the smaller varieties of entozoa f 3 ss. ol. terebinth., followed in the course of twenty or thirty minutes by ol. ricini, is amply sufficient for an adult, and in proportion for children; but in the treatment of tape-worm, double the dose, or more, is necessary to disable them to such extent that they may be discharged from the bowels by the strong contractions excited in them through the stimulus of the turpentine and castor oil. No results may be feared from such doses as I have indicated, save tremulousness, giddiness and indistinctness of vision.

Turpentine possesses the power, not only of destroying and aiding in the expulsion of entozoa, but likewise of obviating that morbid condition in which they find their origin. From this quality of the remedy, in cases of long standing, I am in the habit of administering a dose every week, for several consecutive ones, after all the parasites have apparently been dislodged; and the propriety of this course certainly recommends itself to reason.

CHARLES D. CLEVELAND.

Grass Valley, Cal., July 25th, 1854.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 30, 1854.

Sanitary Measures.—Some people can never be satisfied, even when their own propositions are promptly carried out. A habit of constant fault-finding constitutes a disease, which may in extreme cases be advantageously treated by medicine. Wherever the cholera has been developed, the first popular movement has been to censure the public authorities, whether selectmen, commissioners of sewers or physicians, and the welkin rings with their culpable neglect in not doing this thing or that, which it is supposed would certainly have averted the threatening calamity. If a sporadic case of what appears to be the cholera happens to occur in some crowded and dirty cellar, or somebody has the stomach ache in an old house that was not painted, papered and varnished at the public charge, then it is popular and right to denounce the public authorities for not guarding those peculiar localities. Now a pestilence, especially one like the cholera, goes where it listeth, the laws by which it is governed being little understood. It is therefore unjust to find fault with faithful health officers in regard to such sanitary measures as they may have adopted, when the true course of management for keeping off the cholera is unknown. Throughout the country generally, a system of cleanliness has been thoroughly adopted, and yet the cholera has not been kept away. No one knows, however, how much it has been curtailed in violence and extent, by the efforts which have been made to sustain the public health.

Medical Lectures.—From the indications of the times, a spirit of rivalry as well as enterprise will very soon be apparent in regard to medical lectures. Circulars and pamphlets are multiplying, and the world of science is assuming a busy aspect. Occasionally some one expresses a doubt of the

propriety of contending in the market for patronage, like bidders at an auction, and thinks it undignified for learned professors to cater so very boisterously for students. It is unquestionably a kind of baiting game, and, like the early settlers of Maine, those who place the largest pieces of meat in their traps, catch the most bears. Brilliant descriptions of facilities, such as library accommodations, cheap tuition, board for nothing and the washing thrown in, in new institutions, seem to take well with some, but the morality, and even the policy of such over-painted pictures, is questionable, as cheap professors invariably become associated with second-rate colleges. If it is important that the medical profession be sustained, and if physicians are of any value to society, our schools must be—not merely cheap ones, but such as will permit the student to be thoroughly instructed.

Cancer-Curing.—It cannot be denied that the tendency to a special line of practice, now so manifest in the profession, commenced in this country with quacks, who have always had a prosperous business in any specialty which in their ingenuity they chose to adopt. That of cancer-curing, both in past times and at the present moment, succeeds admirably with them. A thousand kinds of anomalous pimples and perplexing ulcerations, not readily mastered by ordinary medication, at once fall to the domain of the cancer doctor, who in a majority of cases really manages them exceedingly well. Now if the people did but recognize the fact, that by attending to one class of ailments, a greater degree of skill is sometimes attained, even by an illiterate pretender, than by the physician who in a hurried manner attends to every thing in the way of human disabilities, medical pretenders could not subsist by their vocation. At no period in the history of medicine have cancer-curers been sustained more liberally than in this day of science; and their patrons are not the ignorant, low, irresponsible persons sometimes supposed, but oftentimes gentlemen and ladies of position and means too, who seek their advice and pay them liberally for their efforts. Why would it not advance the interests of scientific medicine and professional respectability for some excellent practitioner—in Massachusetts, for instance—to brave the common belief that all cancer doctors are of course quacks, and give his exclusive attention to that mismanaged department of practice? Such a one, beginning with a good reputation as a man and practitioner, would soon secure a remunerating income, which would in time be superior to that of a mixed practice, and very shortly the illiterate mountebanks would disappear under such a competition.

Old Age.—"Andrew Drew, Esq., of Durham, N. H., is now living, and enjoying as good health as usual, at the advanced age of 100 years and 5 months. His head is as free from gray hair as when but 20 years old. Mr. D. had a wife and two sisters; his wife died at the age of 95 years; one of the sisters is now living at the age of 103 years, the other died at the age of 95. Mr. Drew lived with his wife 76 years and has always enjoyed good health; for 76 years he did not fail to be present at the annual town meeting. Several inquiries were made as to his manner of living, from which we learn he has always been industrious and temperate, used a moderate share of spirit, rose early in the morning, managed his own farming affairs, and meddled with no man's business but his own. What seems most remarkable is, that two families connected by marriage should live to so advanced an age, unless special care had been taken to preserve health."

That longevity is an inheritance, is placed beyond a doubt. Some whole families die at an average of about 50 years, and others at a shade beyond; while some, from generation to generation, live to eighty-five and a hundred. Hill countries, however, as a general thing, are the regions where the greatest longevity is attained in the United States. The same is true of Scotland and Syria. In Russia, which is a level country, specimens of old age are occasionally recorded, which are very remarkable, when compared with the ordinary length of days in most civilized countries. But the clearness of the atmosphere in Russia, its vital purity, is what conduces to such longevity, and not the intense cold of the country. On the other hand, in the desert of Arabia, old age is the peculiar inheritance of the wandering tribes. There the sun is intensely hot, but they breathe untainted air, and subsist on the simplest diet. With the few facts which we possess in regard to the conditions of mankind under different temperatures and in different localities, we shall never, perhaps, be able to solve the problem why some are destined to long life and some to an early grave. Yet we are taught by history, the public records, and daily observation, that longevity obtains from one generation to another in certain families, and that we may therefore consider it an inheritance.

Camphor producing Insanity.—The following item of medical intelligence, although not taken from a professedly scientific work, is probably authentic, and contains facts with which medical men should be acquainted. The lunatic asylum referred to, is probably the one in Toronto, Canada West, as the article itself is copied from the Toronto Colonist.

"We are informed that no less than eight persons have been admitted into the Lunatic Asylum in a state of insanity, occasioned by consuming quantities of camphor to prevent cholera. Some of them carried it about in their pockets, and kept from time to time eating small quantities of it. Others took it dissolved in brandy. In all cases where it was taken in any quantity it produced insanity."

Malformation of the Eye.—Two cases have lately been recorded in this Journal, of unusual malformation of the eyes. The following additional case is from the last number of the New Orleans Medical News and Hospital Gazette. It was noticed in a patient of the Charity Hospital of that city.

"A singular malformation presented itself not long since in the case of a patient who had entered one of the medical wards of the hospital, viz: congenital displacement of the right eye. He states that he has always believed the deformity to have been the result of some accident at birth; such was the opinion of his mother. This is evidently incorrect. His face presents the following appearance: Generally well formed; left eye perfect; on the right side the palpebræ are nearly of the natural form, but slightly sunk in, with tarsal cartilages somewhat shorter than is normal and in constant contact. The palpebral fissure is on a line somewhat more elevated than that of the opposite side. The lachrymal papilla and the lachrymal gland, as well as the meibomian glands, are perfect; no rudiment of carucula exists. On separating the eyelids they are seen to be lined with the mucous membrane, which is perfectly natural in appearance. On introducing the finger between the palpebræ, the space usually occupied by the globe of the eye is found to be empty, the mucous membrane form-

ing a complete cul de sac, and presenting no traces of a rudimentary organ. The finger being placed in the cavity of the orbit, and pressure being made on its inferior surface, a round resistant body is distinctly felt, which resembles the eye in size and consistence; this is apparently covered in by a layer of adipose tissue. Pressure upon it causes no pain further than a sensation somewhat like that produced by a similar action on the healthy eye. The inferior border of the orbit can be distinctly defined, and is situated on a line at least one half an inch lower than the corresponding portion of bone of the opposite side. On making pressure between the inferior tarsal cartilage and the inferior orbital ridge, the same moveable body, felt as above mentioned, is found to roll under the fingers. The patient left the hospital cured of the disease for the treatment of which he had entered—diarrhœa."

Cod-Liver Oil in Phthisis.—The contradictory opinions entertained by physicians respecting the value of cod-liver oil in the treatment of consumption, are well known to our readers. These have been shown in our own pages of late, as well as in other medical Journals. Dr. Thompson, of London, whose work on consumption was lately noticed in this Journal, of course treats on this important matter, and his views respecting it are worthy of attention, especially as he has had the advantage of being "Physician to the Hospital for Consumption and Diseases of the Chest," at Brompton. The following synopsis is from the Edinburgh Monthly Journal.

"The superiority of cod-liver oil over every other actual remedy is admitted by Dr. Thompson; 600 gallons of it are annually consumed at the Consumption Hospital—a fact which tells its own tale. It is given in doses of one or two drachms at first twice a-day, the dose being increased to half an ounce three times a-day. 'I have seldom found any advantage from going beyond this limit.' Dr. T. approves of the use of liquor potassæ, and mixes this at pleasure with the oil; of the benefit of alkalies in certain stages of the disease there can be no doubt. Sometimes the stomach will not suffer the oil, and then Dr. T. rubs half an ounce or so of it as a liniment into the thorax night and morning; and 'satisfactory results have been sufficiently frequent to authorize the measure.' Cod-liver oil has no pernicious influence in promoting either hæmoptysis or diarrhœa; if anything, its effects are rather astringent. A few drops of creosote often render the stomach tolerant of its use; infusion of walnut leaves (a remedy much vaunted by some foreign writer in scrofula) is an agreeable vehicle.

"Here Dr. T. pauses to ask if a remedy with such powers will ever fall into disrepute under the fluctuations of fashion; it has, it appears, already done so. Dr. Percival, half a century ago, dispensed fifty or sixty gallons of it annually with surprising good results in cases of old people whose joints were stiffened, &c. 'Except,' he says, 'bark, opium and mercury, I believe no medicine in the materia medica is likely to be more serviceable.'

"Vegetable oils, almond, olive, Dr. T. decides, have no important therapeutical influence; he never could attribute any benefit to them. Fish oils resemble each other in medical properties. Neat's foot oil gives results as favorable as cod-liver oil, and has been found to answer where this has failed; 'it must be regarded rather as an equivalent than as a rival.' Cocoa-nut oil appears an exception to the other vegetable oils; from late experiments, Dr. T. finds it as efficacious as the cod-liver oil; it is cheaper, more palatable, and has been found of avail where the fish oil had failed."

Albany Medical College.—The autumnal course in this well-established school commences, as will be seen by reference to our advertising page, next week—the first Tuesday in September. Rumors having been circulated that the prevalence of cholera in Albany would prevent the commencement of the term at the usual time, we are happy to have it in our power to state that there is no foundation for such a report. The disease has not prevailed extensively in that city at any time during the summer, and now it is fast disappearing there, as in every other part of the country. The term will therefore commence next week without fail; and with such veterans at the head of the school as Professors March and Armsby, and with the aid of their able associates, it cannot be otherwise than that the course will open under the most flattering auspices.

Abatement of the Cholera.—By reference to our weekly report, it will be seen that the mortality from cholera is not increasing in Boston, although the number of deaths from all causes was somewhat higher last week than for any previous week the present season. A subsidence of the disease seems to be general throughout the country; and there is apparently little doubt now that the epidemic of 1854, as it stands recorded by the side of similar inflictions of former years, will be called a light one. As in other visitations, the great majority of its victims have been the intemperate, the filthy and the imprudent—although, as in those seasons, individual cases have taken place among those who by their temperate and proper course of living would seem to have been the most secure from an attack. In Boston, the whole number of deaths by cholera reported to the City Registrar the present season up to Saturday last, was 218. In 1849 the disease began to prevail here about the same time in June as the present year, and the number of deaths up to the last week in August was 380; the whole number during the epidemic, 611. It ceased to exist the first week in October. In New York, last week, the number of deaths from cholera had dwindled down to three or four a-day, and the public daily reports were discontinued. The number of cases received into the two hospitals there, up to Aug. 25, was 696; of which 322 died, 323 recovered, and 51 remained.

Death of Physicians by Accident.—The following notices of two recent melancholy deaths by accident, show that physicians are liable to all the common casualties by which human life is cut short, as well as those which are peculiar to their profession:—

“The Litchfield (Conn.) Enquirer gives the following in reference to the unfortunate drowning of Dr. J. C. Hatch, of Kent:—“He had driven into the Housatonic river to wet his carriage wheels, as he was in the habit of doing. He took a different course than usual, however, and his horse plunged into a gulph which had probably been washed out in the spring freshet. The doctor was then seen to jump on the horse as if trying to secure his head, and a man who was at work in a field near by ran to his assistance, pushing out a board towards him, but too late, and he sunk to rise no more. The horse was also lost. The body was soon recovered. Dr. Hatch stood at the head of the profession in this county, and was loved and respected by a large circle of patients and friends. He leaves a wife to mourn his loss. He was nearly 64 years of age.”

"The Lake Superior Journal of the 5th contains a detailed account of a recent melancholy accident near Eagle River, by which Dr. Pratt, physician to the Minnesota Copper Mine; Mr. Kershon, formerly a clerk in the service of the same company, and a Canadian voyageur, were drowned, and Mr. Revere of Boston, and another voyageur, narrowly escaped with their lives. Dr. Pratt was formerly a resident of Woonsocket, R. I."

The Wet Sheet in Cholera.—Our friend Prof. Rochester, some time since suggested to us that packing in the wet sheet might be a desirable remedy in cholera, and that the blood might thus receive again some portion of the water it had lost. Since then we have seen something of its effects. In one case, where it was applied to a man in collapse and apparently dying, it was followed by re-action and recovery. In no other case could we attribute a cure to it, but we found that in all to whom it was applied it removed the blueness of the skin, and encouraged re-action. In all cases it entirely relieved the cramps, and was a most grateful application to the sufferer. We shall have more to say about it hereafter.—*Buffalo Med. Jour.*

Medical Miscellany.—Dr. J. G. Elliott, of Littleton, N. H., is no longer post-master of that place.—Dr. J. A. Patterson, of M'Whirtlesville, Tenn., has been arrested for robbing the mail.—The cholera has finally reached the island of Mauritius, and manifests its usual characteristic fatality.—The dog law in New York went into operation on the 26th of June. Since that day 3140 have been arrested and taken to the dog-pound; 2160 have been killed, and the remainder redeemed.—Word comes that yellow fever does not exist at Charleston, S. C.—Dysentery prevails extensively throughout New England, aggravated by the use of crude fruit, among children.—Dr. J. F. Peebles, of Petersburg, has become associate editor of the Virginia Medical and Surgical Journal.—Prof. N. S. Davis has succeeded Prof. Herrick, as senior editor of the North Western Medical and Surgical Journal.—Starling College has been re-organized, and is to open its next session on the 30th of October, and continue 16 weeks.—Dr. John P. Gray, now Acting Superintendent of the New York State Lunatic Asylum, has been appointed Superintendent of the Michigan State Hospital for the Insane at Kalamazoo.—Delirium tremens has more than doubled, according to the Montreal Medical Chronicle, its percentage among the troops, during the last thirty years, and the ratio of deaths to the whole number of cases is increased one third. This shows either bad discipline, and degeneration of medical treatment in the British army, or else defective statistics. Probably the latter, says the Peninsular Journal of Medicine.

DIED.—In New York, Joseph Dennis, M.D., aged 26.—At Cincinnati, Ohio, of cholera, Robert Turnbull, M.D., of the State of New York, aged 51.—In Hatfield, Aug. 19th, Dr. T. Franklin Knight, 37.

Deaths in Boston for the week ending Saturday noon, Aug. 26th, 135. Males, 71—females, 61. Accident, 5—disease of the bowels, 2—inflammation of the bowels, 1—congestion of the brain, 3—consumption, 18—convulsions, 4—cholera, 26—cholera infantum, 11—cholera morbus, 1—croup, 1—cancer, 1—dysentery, 12—diarrhoea, 2—dropsy, 1—dropsy in the head, 4—drowned, 3—debility, 2—infantile diseases, 6—erysipelas, 1—typhus fever, 1—typhoid fever, 1—scarlet fever, 1—hooping cough, 2—homicide, 1—inflammation of the lungs, 1—congestion of the lungs, 1—disease of the liver, 1—marasmus, 2—menies, 1—old age, 3—pleurisy, 1—palsy, 1—starvation, 1—disease of the spine, 1—smallpox, 1—teething, 6—thrush, 4—tumor, 1—unknown, 1.

Under 5 years, 59—between 5 and 20 years, 13—between 20 and 40 years, 25—between 40 and 60 years, 30—above 60 years, 8. Born in the United States, 79—Ireland, 48—England, 2—British Provinces, 1—Scotland, 1—Germany and the north of Europe, 4.

The American Medical Association.—We are not so great an admirer of this Association as some of our friends profess to be. We do not think that it has done so much for the advancement of science and the glory of the profession as it might have done. Indeed, we think that it has done very little in comparison with the outlay of time and money incurred. The Association might regulate medical teaching, and elevate the requirements of medical candidates in this country. It has not done so. It might have constituted itself a *bona fide* medical congress, in which the cardinal questions of medical philosophy might have been, and might still be discussed. This it has not done. Three days is rather too short a time for any thing like scientific discussion, more especially when the intervening nights are spent in frolicking. All that the Association has done, might have been accomplished without it, and its expenses, which are no small item, might have been saved. We respectfully suggest that the sessions of the convention be lengthened—that all the papers prepared for the occasion be read—not mere *abstracts* of them, and that prominent and important topics be selected for discussion. The observation of facts is important, researches by crucible and microscope are of great service to medical science; but the intellect of the reasoner must be brought to bear on them to render them available in practice. This would be better effected by discussion—by the collision of intellect amongst men of thought, and reading, and observation, than by any other means. For the discussion of such topics it would be worth while to have a convention. We would also be in favor of doing away with all costly entertainments and frolicking. These certainly do not advance the dignity of the profession, or the march of science.—*St. Louis Medical and Surgical Journal.*

BOYLSTON MEDICAL PRIZE QUESTIONS

The Boylston Medical Committee, appointed by the President and Fellows of Harvard University, consists of the following Physicians:

JOHN C. WARREN, M.D. JOHN JEFFRIES, M.D.
W. CHANNING, M.D. J. B. S. JACKSON, M.D.
S. D. TOWNSEND, M.D. D. H. STORER, M.D.
EDW. REYNOLDS, M.D. J. M. WARREN, M.D.
CHARLES G. PUTNAM, M.D.

At the annual meeting of the Committee on Wednesday, Aug. 3, 1854, a premium of sixty dollars, or a gold medal of that value, was awarded to Silas Durkee, M.D., of Boston, for the best dissertation on the following question:—"The Constitutional Treatment of Syphilis."

The other Boylston premium of the same value, was adjudged to George H. Lyman, M.D., of Boston, for the best dissertation upon "The non-malignant diseases of the Uterus."

The question for 1855, is—"On the Diagnosis of the Diseases of the Uterinary Organs."

Dissertations on this subject must be transmitted, post paid, to John C. Warren, M.D., on or before the First Wednesday of April, 1855.

The following questions are proposed for 1856:—
1. *The nature and treatment of Asiatic Cholera.*
2. *What is the nature and treatment of the disease called Anæmia by anæsthesia.*

Dissertations on these subjects must be transmitted as above, on or before the First Wednesday of April, 1856.

The author of the dissertation for which a prize is adjudged on the subject offered for 1855, will be entitled to a premium of one hundred and twenty dollars, or a gold medal of that value, at his option.

The author of the best dissertation considered worthy of a premium on either of the subjects offered for 1856, will be entitled to a premium of sixty dollars, or a gold medal of that value, at his option.

Each Dissertation must be accompanied by a sealed packet, on which shall be written some device or sentence, and within shall be enclosed the author's name and residence. The same device or sentence is to be written on the Dissertation to which the packet is attached.

The writer of each dissertation is expected to con-

fine himself strictly to the consideration of the subject proposed; and to transmit his communication to the Chairman of the Committee, in a legible hand-writing, within the time specified.

All unsuccessful Dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1825, the Secretary was directed to publish annually the following votes:—
1st. That the Board do not consider themselves as approving the doctrines contained in any of the Dissertations to which premiums may be adjudged.

2d. That in case of publication of a successful Dissertation, the author be considered as bound to print the above vote in connection therewith.

D. HUMPHREYS STORER, Sec'y.
Boston, Aug. 3, 1854. aug 9-41

ALBANY MEDICAL COLLEGE.—Two full Courses of Lectures are delivered annually, continuing, each, six *weeks*. Degrees are conferred at the close of each term. Fees for a single Course, \$50; for both Courses (payable in advance), \$100. Graduation fee, \$20.

The next Course commences on Tuesday, the 5th of September, 1854; the Spring Course, on the 13th of February, 1855. Materials for dissection are abundant, and furnished to students on as reasonable terms as at any similar institution in the country. A spacious Hospital has been opened nearly opposite the College, to which Students are admitted free of charge. Weekly Cliniques are held in the College.

Boarding, from \$2.50 to \$3.00 per week.

ALDEN MARCH, M.D., Prof. of Surgery.

JAMES MCNAUGHTON, M.D., Prof. of the Theory and Practice of Medicine.

JAMES H. ARMSTRONG, M.D., Prof. of Anatomy.

THOMAS HUN, M.D., Prof. of the Institutes of Medicine and Materia Medica.

AMOS DEAN, LL.D., Prof. of Medical Jurisprudence.

HOWARD TOWNSEND, M.D., Prof. of Obstetrics.

EZRA S. CARR, M.D., Prof. of Chemistry and Pharmacy.

HOWARD TOWNSEND, Reg'.

Albany, May 25, 1854. m 31-1 Oct.